Artificial Intelligence for Civic Participation: Ensuring Accessibility for All Citizens

Maria Zangl , Michael Bedek, & Dietrich Albert
University of Graz, Cognitive Science Section

ITHACA — AI To Enhance Civic Participation

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Background & Aims

- Members of socially vulnerable and marginalized groups (e.g., Elderly, Disabled) are under-represented in political participation [1]

- AI-based decisions can exacerbate existing inequalities [2]

- Vulnerable individuals are often excluded from technical design studies [3] → their needs are disregarded

- AI has the potential to increase inclusivity (e.g. language simplification/translation) [4]

- Thus, understanding the barriers & facilitators for civic participation using AI for vulnerable groups is a platform development priority

Pilot Cities

Martin (Slovakia)

Brasov (Romania)

Method
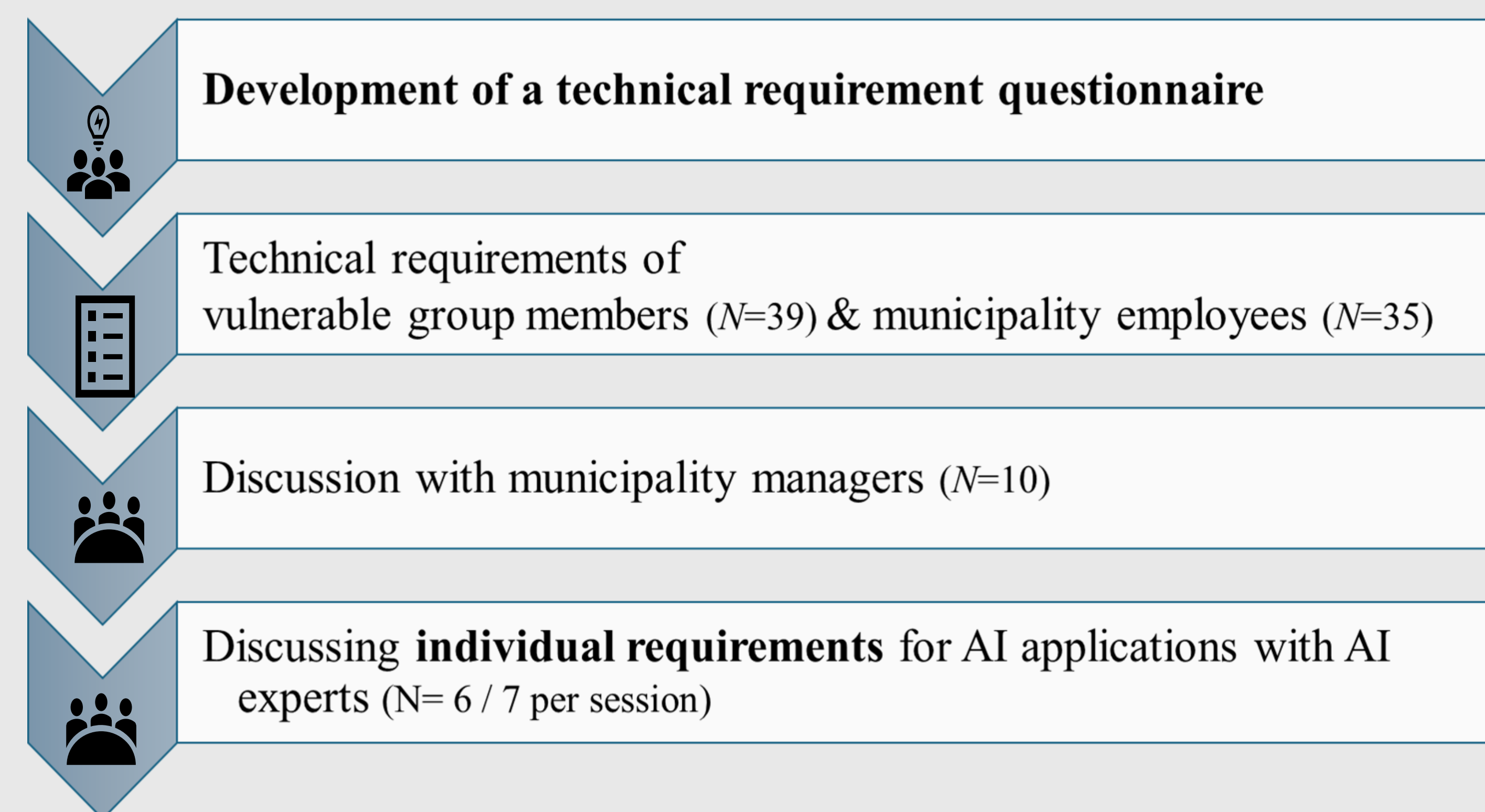
Recruiting Approach for Vulnerable Citizens:

- Identification of vulnerable & marginalized groups (e.g., Elderly, LGBTQ$^+$) and vulnerability criteria (e.g., low income, low education)

- Recruiting „representatives" from NGOs & self-help groups

- Selecting participants for AI Citizens' Juries based on vulnerability factors

AI Citizens' Juries in Brasov & Martin:

- Discussions to identify potential harms of AI in the context of civic participation & how AI could meet their needs

- Listen to their concerns, risks and challenges

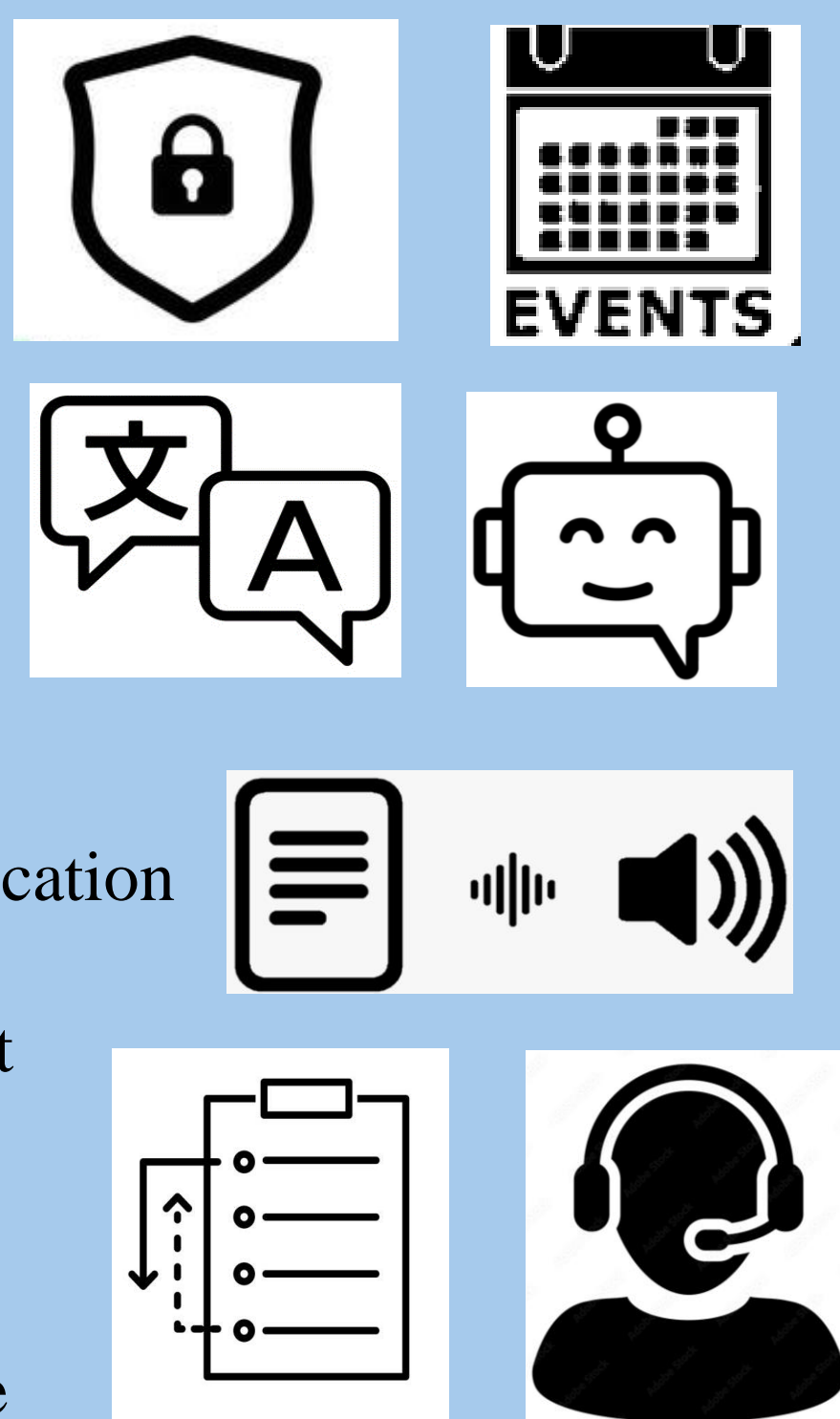### Requirement Analysis with Municipality Managers & AI Experts

- Technical needs for local municipalities for civic participation

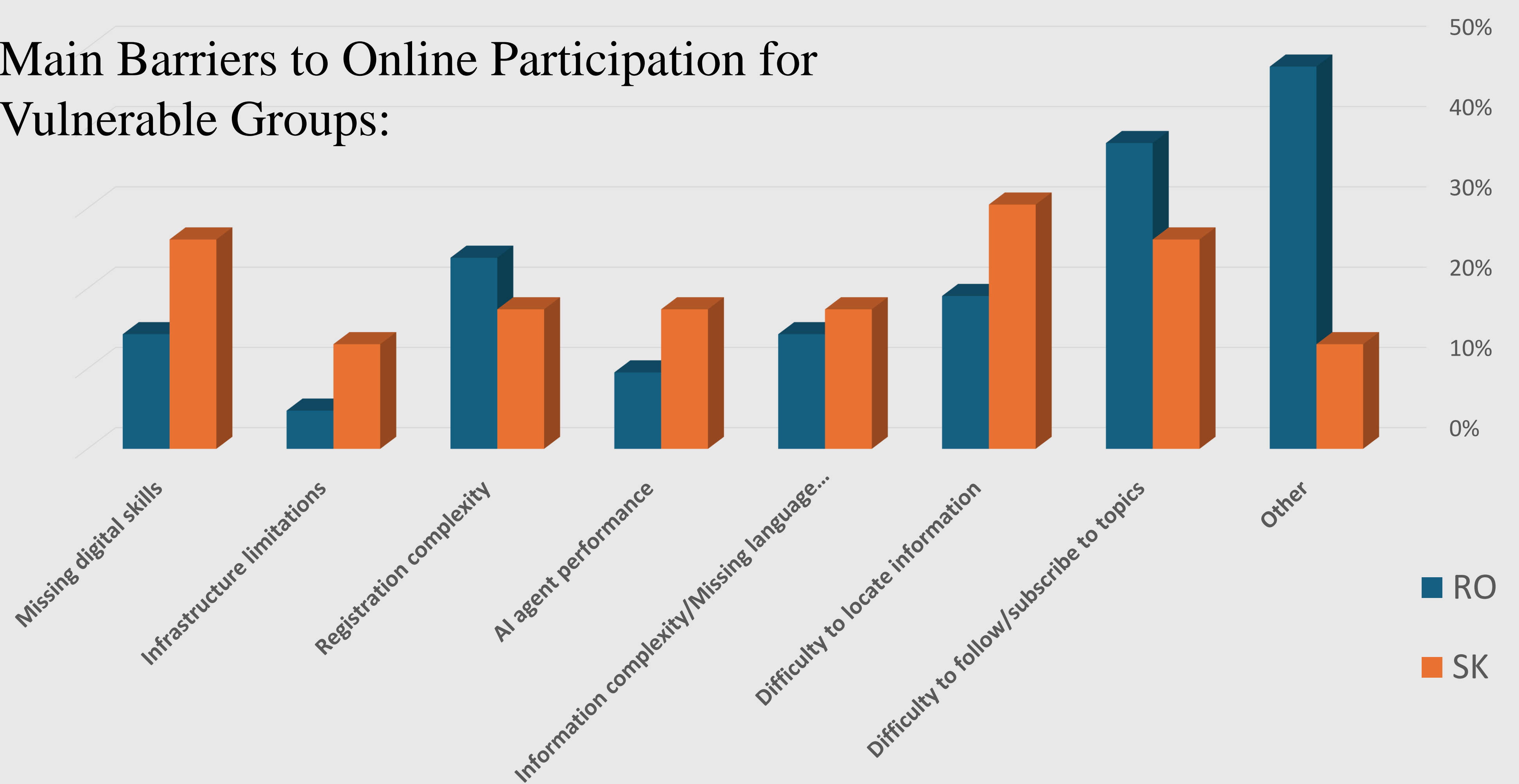- Discussion of individual requirements for beneficial use of AI features

Development of a technical requirement questionnaire

Technical requirements of vulnerable group members (N=39) & municipality employees (N=35)

Discussion with municipality managers (N=10)

Discussing **individual requirements** for AI applications with AI experts (N= 6 / 7 per session)

Results & Discussion

Technical Requirements Supporting Vulnerable Group Members in Pilot Cities
($n = 39$)

- Security Features
- Event calendar
- Chatbot for interaction
- Topic Recommendations
- Language translation & simplification
- Text-to-Speech / Speech-to-Text
- User-friendly designs
- Human support for platform use

Main Barriers to Online Participation for Vulnerable Groups:

Bar chart categories: Missing digital skills; Infrastructure limitations; Registration complexity; AI agent performance; Information complexity/Missing language...; Difficulty to locate information; Difficulty to follow/subscribe to topics; Other. Legend: ■ RO ■ SK

Main Requirements Recommended by AI Experts (n=13)

- Accessibility: Compatibility with assistive tools
- Content moderation as ‚Must-have'
- Offering transparency & education on purpose & limitations
- Promoting critical thinking about AI recommendations
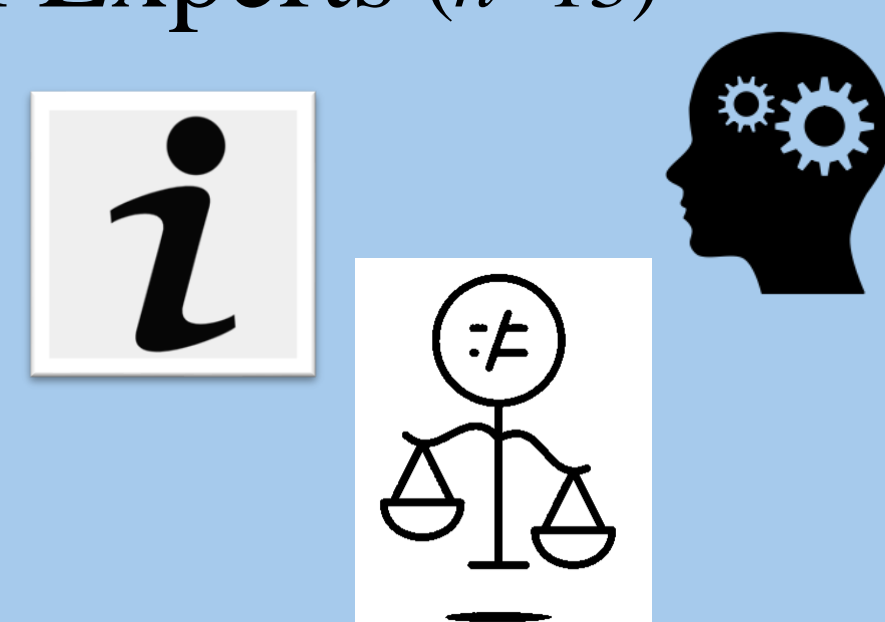
Main Requirements of Municipality Employees ($n = 45$)

- Security Features
- Local News Page
- Auto-Correction Tools
- ....

[1] Guldvik, I., Askheim, O. P., & Johansen, V. (2013). Political citizenship and local political participation for disabled people. *Citizenship Studies*, 17(1), 76–91.
[2] Kuran, C. H. A., Morsut, C., Kruke, B. I., Krüger, M., Segnestam, L., Orru, K., ... & Torpan, S. (2020). Vulnerability and vulnerable groups from an intersectionality perspective. *International Journal of Disaster Risk Reduction*, 50, 101826.
[3] Fischer, B., Peine, A., & Östlund, B. (2020). The importance of user involvement: a systematic review of involving older users in technology design. *The Gerontologist*, 60(7), e513-e523.
[4] Garcia Valencia, O. A., Thongprayoon, C., Miao, J., Suppadungsuk, S., Krisanapan, P., Craici, I. M., ... & Cheungpasitporn, W. (2024). Empowering inclusivity: improving readability of living kidney donation information with ChatGPT. *Frontiers in Digital Health*, 6, 1366967.

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